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ABSTRACT

This report of the 1970 American Association of Junior Colleges regional conference proceedings deals with five subjects. The first is "Innovative Programs at Florissant Valley Community College." The innovative programs have generally been in audiovisual and computer-assisted instruction with the goal of preparing teachers to know what instructional options are available and how they may be used. The second topic, "Humanizing Education," offers a systematic approach to instruction for the purpose of increasing the aspirations, motivations, and self-concept of students and teachers. The third topic, "The Implications of Student Personnel Programs for Effective Instruction," offers eight suggestions for what student personnel workers can do to take leadership on the college campus. The fourth topic, "General Education in Occupational Programs," discusses the importance of students being prepared to cope with the dynamics of both modern society and the work world. In the final topic, "A Systematic Approach to General Education for Career Students," a systems model and approach are given. A systems approach produces a carefully defined set of behavioral objectives and educational materials, and gives a set of validated learning modules to be used to lead students to the achievement of general education objectives. (CA)

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HUMANIZING EDUCATION IN THE JUNIOR COLLEGE

Selected Proceedings
of an Inter-regional Conference
of the AAJC Program
With Developing Institutions
at Florissant Valley College,
St. Louis, Missouri
June 14-16, 1970

Edited by
Selden Menefee and D. Brent Smith

PWDI

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INTRODUCTION

In the first two years of the AAJC Program With Developing Institutions, each year was launched with a national conference at which outstanding leaders in the junior college field spoke and conducted informal sessions with college representatives and college-bound consultants. The first such conference, held at Airlie House, Warrenton, Virginia, in June, 1968, was devoted entirely to "Planning for Development," with workshop sessions for consultants, presidents and trustees. The second, held at Vincennes University, Indiana, in June, 1969, focused on a single topic: "Strategy for Change in the Junior College." (See FWDI monographs so named.)

The third year began somewhat differently, for in 1970-71 there was to be a much more diversified program: two major projects and three smaller groups of junior colleges were assigned to the Program With Developing Institutions by the U. S. Office of Education. At a planning session of regional coordinators and national advisors in April, 1970, the question of a national FWDI conference was discussed. It was decided that with such a diversified program, it would be difficult to organize a conference that would meet the needs of all projects and still have any real degree of cohesion. Accordingly, it was recommended that efforts be concentrated on regional and specialized conferences instead.

Immediately afterward, the coordinators of Regions V (the Midwest), VI (Northwest) and VII (Plains States) decided to merge their efforts in a tri-regional conference at St. Louis, a central point. The three regional coordinators (Isaac Beckes, James Loper and Charles Barnes) formed a committee on arrangements, which Dr. Beckes chaired informally. Region IV Coordinator Ernest Stockton of Tennessee and Region VIII Coordinator James McWilliams of Texas subsequently asked for inclusion of colleges in their regions. This request was accepted, so in the end five of the eight regions were involved in what was the nearest thing to a national conference that would be held in 1970. It was attended by about 150 persons, representing 37 funded colleges (36 from the Midwest and South, one from Maryland) and five associate colleges. (See Appendix A for program.)

Of 85 persons returning evaluation questionnaires at the final session, 21 rated the conference as "very valuable," 50 as of "considerable value," and 14 "some value," with none lower on a five-point scale. Asked which session was most valuable, two-thirds of the respondents picked the keynote address by Parton Herrscher on "Humanizing Education," the theme of the conference. (See Appendix B for detailed evaluation of the conference.)

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Dr. Beckes, who chaired the conference, and Regional Coordinators Loper and Barnes deserve much credit for arranging a stimulating program; and the committee expressed profound thanks to President Ray Stith and Dean David Underwood of Florissant Valley College for their hospitality in hosting the conference.

In response to many requests for copies of the speeches, the Washington office of the AAJC Program With Developing Institutions agreed to publish the statements of leading speakers in a short monograph to be sent to PWDI colleges and the conference participants.

Credit is due David Brent Smith and Lee Ann Focer, PWDI staff assistants, for helping to prepare this manuscript for publication.

The AAJC Program With Developing Institutions is financed by grants to colleges under Title III of the Higher Education Act of 1965, administered by the Division of College Support, U. S. Office of Education, Department of Health, Education and Welfare.



Selden Menefee
Program Director

Washington, D.C.
September 1970

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INNOVATIVE PROGRAMS AT
FLORISSANT VALLEY COMMUNITY COLLEGE

David Underwood
Dean, Florissant Valley Community College, St. Louis, Missouri

The Junior College District of St. Louis first enrolled students in two high school buildings in January 1963. Early administrators in the District were committed to the idea that education had to be changed somehow if the junior colleges in the District were to have something better than what was currently then available in higher education.

Accordingly, a series of meetings with faculty members from the three colleges were held to discuss what could be done. These brainstorming sessions were entirely open-ended, largely unstructured, and somewhat disconcerting. I see in them the ancestor of the modern-day T-group, sensitivity group, encounter group, micro lab, or whatever you call it in your area. Some of us called the sessions "group grope." Aside from the enthusiasm generated, out of these sessions came the policy of funding extended and released time projects in the District, starting in the summer of 1965.

The policy works like this: Faculty members may be paid at the part-time teaching rate to pursue projects in the summer on extended time; or they may be released from part of their regular teaching load on released time in the academic year to pursue projects. Each college budgets 2% of its instructional budget for this purpose, with a similar fund available in the overall District budget for additional support.

Following the completion of the project, a report is filed in the instructional office; copies are furnished to all division chairmen and to the library on campus as well as to the other colleges.

The initial experience was a bit whaggy. No one really knew how to design the proposal, or how to allocate the funds. We developed a simple form on which the proposer could describe what he proposed doing and estimate the cost. Eventually, this form, through refinement and custom of use, caused little difficulty. Fairly early, as a rule of thumb, we began to define work in terms of 40 hour week units: that is, to be paid for one credit hour on a project, the investigator would do 40 hours of work. It was still difficult to estimate the time required for doing projects, since for the most part faculty were dealing with equipment with which they had had little experience. For example, a proposer might timidly ask for 3 credit hours (120 hours of work) to prepare 25 half-hour audio

tapes. This is about like the new English teacher deciding to cover all of English literature in one semester. Gradually, I think most of us have come to understand our limitations better and have become more familiar with the time it takes to do certain types of things.

There was another initial problem. How much preliminary work should go into the proposal? We found that if too much detail was required in the preliminary proposal, the question would be raised as to whether we shouldn't grant extended time to prepare extended time proposals. From this dilemma came the understanding that extended time, to a large extent, had to act as a sort of seed money, with the understanding that some of it wasn't going to get us anywhere. That is what is often the case with research funds anyway.

Expenditures have grown as the college budget generally has grown. From less than \$10,000 in 1965, the amount spent for extended time has been: 1966-\$20,000, 1967-\$33,000, 1968-\$41,000, 1969-\$50,000, 1970-\$60,000.

Careless initial planning and incompleteness of the early guidelines caused some problems. It took us a year or so to realize that we could not use all the extended time budget for salaries--something had to be earmarked for fringe benefits to accompany the salary expenditures. More importantly, if a project produces a series of slides, audio tapes or video tapes, then someone has to come up with the money to pay for such materials. One could exhaust the regular year's instructional resources budget for extended time projects alone. Accordingly, we now earmark 10% of this budget for supplies and for fringe benefits.

The projects have generally been devoted to development of software for various types of audio-visual equipment, development of experimental teaching approaches (involving or not involving A/V), developing new curricula or courses, and so forth. There seems to be emerging a sort of plan overall, partly be accident and partly by design.

The initial problem in instruction was that few of us had much experience, or had none at all, with the tools of the trade. The first overhead projector that appeared on the scene brought requests for more opaque projectors, for example. The notion of using audio tape recorders had not occurred to many of us; we were still inquiring about the possibility of buying phonograph records. Thus one might say that the overarching goal of our innovation has been the preparation of teachers. As teachers, we didn't know too much about the tools of the trade. That goal at Florissant Valley Community College has about been reached. When we started out we were like the medical staff at a hospital that had not yet received word of penicillin. As a result of the rather free-handed use of the research budget, we have a good idea as to what options are available to a teacher and how these options may be used.

Interestingly, no concerted effort has been made to get faculty to use A/V devices. I do not recall ever advising a faculty member to use more A/V or less A/V. Yet our harassed A/V people tell me that utilization runs about 95%--that is, about 95% of the faculty use A/V devices on a regular basis. And by the way, the credit for this does not go entirely to the extended time budget. An extremely cooperative, knowledgeable, and service-minded A/V staff gets a lion's share of the credit.

Here's a bit of evidence that shows the effectiveness of the extended time money, however. We had a Chester dial access audio retrieval unit installed in the temporary library building shortly after we moved in. We were especially receptive to extended time proposals that involved use of this equipment--no doubt because we would have been embarrassed had there not been substantial usage of this elaborate and expensive hardware. Within two years after we began funding projects, every academic division had material on the dial access equipment and was using it. Faculty members now prepare materials for the dial access equipment on their own, as a matter of course, without the benefit of extended time.

The main thrust next moved into experimentation with television instruction and computer-assisted instruction, with all sorts of other projects proceeding at the same time with overhead projectors, film loops and films, slides, writing objectives and running of open laboratories. The main thrust extended to TV as a few portable video tape recording systems were available and a 1050 terminal to the District's 360 IBM computer was made available.

The first goal--perhaps better called an outcome since I must confess it has been partially accidental--has been the development of expertise among the teachers. I expect that as new devices are developed, this effort of familiarization will always be with us, but to a much lesser extent than heretofore. I believe that now that we know the tools of the trade, we are about to get on to more difficult matters, or specifically one matter--individualizing instruction, making instruction more efficient, or making instruction more effective--however you want to phrase it.

I personally take a rather jaundiced view of innovation. I have too often been to colleges that advertise innovation but have found the innovator to be out elsewhere describing his innovation when I got there. It occurs to me that innovation must be about 90% press release. A question that ought to be asked about innovation is this: Does the innovation change anything permanently? At Florissant Valley Community College it has. As you walk past classrooms you will doubtless note some lecturing, some discussing--all sorts of teaching methodology. Cynics might say, as students say nowadays after the riot ends, that nothing's changed. But there have been some tangible changes here. Probably most important is the change in the attitude toward laboratories. The Biology Department, employing some creative

thievery, picked up Dr. Postlethwait's idea, and the open laboratory is now an established thing at FVCC. The idea spread to physics, and with some novel twists--students can proceed at their own pace in physics and physical science courses. They can even finish the courses before the semester ends or take longer than a semester. Professor Bill Aldridge, chairman of the Physics Department, has become something of a nationally known leader in physics instruction through his efforts to create the open laboratory approach, using behavioral objectives. Home economics and nursing are also dedicated to the open laboratory approach, and some effort is being made to establish the open laboratory in chemistry. Much of the early effort in this regard was funded through the extended time budget.

Added to our permanent collection of available software is a large collection of audio and video tapes, slides, transparencies, computer programs, even closed loop films and a 16mm sound color film, and the like. Several books, laboratory manuals, and magazine articles have been written as a direct result of the projects. I suspect that there is a feeling of being where the action is that has served to keep morale high here at FVCC.

Another outcome was the funding by the U.S. Office of Education of three projects in physics and projects in English and mathematics. We now reserve a part of the projects fund to use in showing the college commitment so that we may attract such funds. We have several proposals pending.

Some of the interesting projects I might mention:

- (1) Compositional innovations in art-slides
- (2) Overhead projection transparencies on propaganda techniques
- (3) Audio tapes for Remedial English
- (4) Audio tapes for journalism (simulated interviews)
- (5) Videotapes for a creative selling course
- (6) A multi-instructional program for remedial algebra using the systems approach.

Summarizing the results:

- (1) Familiarization of staff with educational possibilities
- (2) Changed modes of instruction (open lab)
- (3) Greatly increased use of different A/V devices
- (4) Large collection of educational software
- (5) Faculty publications
- (6) Increase in faculty morale
- (7) Funding of projects by an outside agency.

Inadequacies of the extended time approach at FVCC have been our failure to evaluate some of our efforts and the failure of not disseminating adequate information about what is being done or has been done.

Evaluation is a difficult matter, especially when you are trying to encourage strikingly different approaches. And when preparing instructional materials, how is one to evaluate the materials except subjectively? As we move toward greater emphasis on objectives and on the individualizing of instruction, we will be in a better position to set up more tangible evaluative procedures.

The matter of dissemination of information is equally difficult to solve. We have now developed a quick reference abstract format. Distribution of this can be made on a more general basis than could the earlier, more complete report book that we produced. Also, we have developed a master catalog of project titles, using the computer printout, so that we can update our total file of projects readily year by year. These two reporting devices should enable members of the college family and those outside of it to locate the investigator of a project more readily than heretofore.

A final comment about innovation at FVCC. I suspect that in another two or three years we will look back on some of our current projects with embarrassment. They will look crude and maybe useless. Already I note some raised eyebrows when we talk about what was done initially. But one has to start somewhere; you can't build a house without some kind of foundation.

HUMANIZING EDUCATION

Barton R. Herrscher
Program Associate, Regional Education Laboratory
for the Carolinas and Virginia

Does education need humanizing? Although respondents can be found on both sides of this issue, I subscribe to an unqualified "yes" in answer to the question. Much evidence can be mustered in support of this position, but to briefly set the stage for my comments on how education can be humanized, I shall draw from Benjamin S. Bloom's "Learning for Mastery" to document the need for change.

Each teacher begins a new term (or course) with the expectation that about a third of his students will adequately learn what he has to teach. He expects about a third of his students to fail or to just "get by." Finally, he expects another third to learn a good deal of what he has to teach, but not enough to be regarded as "good students." This set of expectations, supported by school policies and practices in grading, becomes transmitted to the students through the grading procedures and through the methods and materials of instruction. The system creates a self-fulfilling prophecy such that the final sorting of students through the grading process becomes approximately equivalent to the original expectations.

This set of expectations, which fixes the academic goals of teachers and students, is the most wasteful and destructive aspect of the present educational system. It reduces the aspirations of both teachers and students; it reduces motivation for learning in students; and it systematically destroys the ego and self-concept of a sizable group of students who are legally required to attend school for 10 to 12 years under conditions which are frustrating and humiliating year after year. The cost of this system in reducing opportunities for further learning and in alienating youth from both school and society is so great that no society can tolerate it for long.¹

Assuming the acceptance of this rationale for changing educational practice, what, you might ask, are the characteristics of an instructional system which will humanize education? You have in your hand (printed below) a list of thirteen questions which touch upon classroom practices and concepts. If you answered "yes" to all thirteen, the discussion to follow will contain few new ideas for you. Many of you, I suspect, have some "no" boxes checked. My comments should contain "food for thought" for you.

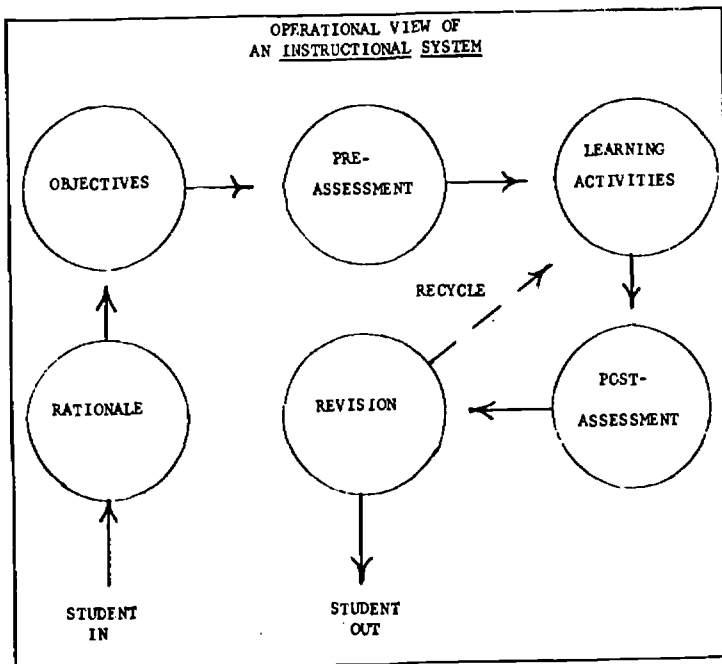
INSTRUCTION CHECKLIST	
Yes	No
—	—
1.	Do you assure that each student knows why it is important that he learn the material which comprises the course?
—	—
2.	Do you communicate to the student, in writing, the goals of the course and the specific objectives of each unit of instruction?
—	—
3.	Do you take each student "where he is" and provide learning experiences tailored to his individual needs?
—	—
4.	Do you, through the use of media, incorporate a variety of stimuli in the instructional process?
—	—
5.	Do you stand accountable for student learning?
—	—
6.	Do you teach without doing most of the talking; that is, is the student actively involved in directing his own learning?
—	—
7.	Do you employ testing to assess teaching rather than to categorize students?
—	—
8.	Do you employ non-punitive grading in your courses?
—	—
9.	If a student performs poorly on a test, is he, after further study, allowed to re-take the test without penalty?
—	—
10.	Do most students learn enough in your courses to earn an "A" or a "B"?
—	—
11.	Do you systematically try to ascertain how your students feel about the class, the subject, and how it is being taught?
—	—
12.	Since it is an accepted fact that students learn at different rates, does your classroom format allow each student to proceed at his own rate?
—	—
13.	Do you have sufficient time to work with all students individually?

My plan is to present an approach to instruction which addresses itself to these thirteen points. I choose to call it "a systematic approach to instruction" and submit that, as such, it is a proposal for implementing a humanistic approach to education.

Overview

Although the systems approach to instruction is a "new" concept to many practitioners in the field of education, it does not represent new thinking. Ralph Tyler was conceptualizing such an approach to instruction as early as 1935. Shortly thereafter the military demonstrated its feasibility and effectiveness. Recently, major inroads have been made into the field of education. The systems approach (see following diagram) involves six basic steps: (1) a rationale; (2) specific instructional objectives; (3) pre-assessment; (4) learning activities; (5) post-assessment; and (6) revision. These are combined

in an empirical manner to produce a viable and efficient learning system. The system's proven capability of producing measurable learner achievement is its hallmark.



This view of an instructional system is at the operational level rather than at the theoretical level. In essence, it is a map which charts the path followed by the learner as he strives for mastery of a given unit of instruction.

Educational personnel concerned with instruction should have an understanding of this conceptualization which is the key to making instruction more efficient, and which provides sound, organized direction for further improvement.

The systems approach gives focus to instruction and to learning while accommodating most modes of teaching, whether it be lecture method, discussion, audio-tutorial, or various approaches incorporating self-paced learning.

An examination of each facet of the system and some implications follow.

THE RATIONALE

The content of each unit of the course is selected on the basis of its relevance to the needs of the students and the purposes of the institution. The student must be informed why it is important that he master the material dealt with in the unit. Without a perceived purpose, the activities become simply hurdles to clear rather than meaningful learning experiences. Attainment of the objectives is thereby facilitated.

INSTRUCTIONAL OBJECTIVES

Objectives are the basic building blocks of each unit of each course. It is through these that the instructor communicates a specific set of expectations to his students. In this manner, direction is afforded and learning is encouraged.

The objectives are written in terms of student behavior, i.e., what it is the student will be able to do after instruction that he could not do before.

Aside from the advantages mentioned above, the explication of learning outcomes gives direction to the assessment of learning. Objectives dictate the test questions to be used so as to collect evidence of behavior change in the subject, thus verifying the effectiveness of instruction.

All learning and thus all instructional objectives, can be classified as either (1) cognitive (intellectual processes); (2) affective (feeling and attitudes); and (3) psychomotor (manual skills).

PRE-ASSESSMENT

A pre-assessment of learner capability should always precede formal instruction. This pre-assessment of "student input," based upon the objectives of the unit of instruction, helps to determine (1) whether the student has the prerequisite capabilities to profit from the instruction; (2) whether the student already possesses the behaviors specified in the objectives; and (3) where the student, who possesses some but not all the specified behaviors, should be placed in the graduated sequence of learning activities. A pre-assessment score before instruction, compared with a post-assessment score after instruction, gives tangible evidence of learner achievement.

LEARNING ACTIVITIES

The learning activities are means to an end, rather than an end in themselves. They become the terrain over which the student travels in pursuit of the objectives of the unit. Non-traditional approaches are suggested, since research indicates the traditional lecture and discussion approaches are ineffective with non-traditional students. A variety of approaches is recommended. The case for incorporating various stimuli in the instructional process is research based. U.S. Navy audio-visual studies found that visual displays are 22 times more powerful than auditory signals in transmitting impulses to the brain.²

Audio-visuals, historically considered aids to instruction, take on new emphasis under this system. Now called media, they are an integral facet of the system used not as supplements but as components selected on the basis of their measured potential to bring about the desired learning.³

Generous opportunity for appropriate practice in the learning activities must be provided. These are an important part of the teaching process. Teaching has been defined in many ways by various persons. In all definitions, however, a basic condition associated with teaching is learning. Essentially, "teaching causes learning." If no learning has occurred, we may infer that no teaching has taken place.⁴ Since colleges are first, and last, teaching institutions, they must become accountable for student learning.⁵

Teacher accountability is a natural concomitant of this system. Since the focus is on the ends of instruction (what the student will be able to do after instruction) rather than on the means of instruction (what the teacher will be doing during instruction) the teacher automatically assumes responsibility for student learning.

Learning is defined as a change in behavior--the student is able to act in certain ways that were impossible before teaching took place. No longer is a teacher presentation of course content synonymous with student learning.⁶ The teacher abandons his role of talker--dispenser of knowledge--and becomes manager of learning under the systems approach to instruction.

POST-ASSESSMENT

If student learning is the goal of our educational institutions then the assessment of learning becomes an extremely important process. It is only through such assessment that we are able to determine the success of our teaching endeavors. Mager asks, "If it's worth teaching, isn't it worth knowing if we have succeeded?" And we must have measurable evidence of student learning so as to document that teaching, which is the overriding purpose of the college, has occurred. Testing is thus used to assess teaching, not to categorize students.

In the past few years measurement experts have evolved markedly different approaches to testing practices. These approaches are at considerable variance with the customary measurement procedures historically used by educators. It is therefore imperative that those involved with the assessment of learning, and this includes most educational personnel, know the implications of these new procedures.⁸

Consider here the difference between the norm-referenced approach to evaluation, traditionally used in classrooms, and the new criterion-referenced approach:

Norm-Referenced Approach	Criterion-Referenced Approach
Used to ascertain an individual's performance in relationship to the performance of others	Used to ascertain an individual's performance with respect to an established criterion or performance standard

Instruction adapted to the individual learning rates of students dictates the need for a criterion-referenced approach to evaluation. Non-punitive grading is employed and if students perform poorly on a test it simply means they have not as yet learned, and thus have not as yet been taught. Thus, an "F" symbolizes instructional failure.

A crucial element of the system then is the post-assessment where learning, and thus teaching, are measured. No learning means the instruction must be revised, and the student recycled back into the system until such time as he demonstrates mastery of the subject matter. No learning does not mean the grade of "F" indelibly branded on the student.

The theoretical base is supplied by Bloom's concept that the grade of A as an index of mastery of a subject can be achieved by up to 95 percent of the students in the class, given sufficient time and appropriate types of help.⁹ Thus, the normal curve as a guide in assigning grades, and the view that aptitude is the capacity for learning, are no longer valid. Most students are capable of mastery, and our instructional system must accommodate this concept.

REVISION

If Carroll's view that aptitude is the amount of time required to attain mastery of a learning task is correct, then mastery learning is theoretically available to all.¹⁰ This formulation has the most fundamental implications for education, one of which is that instructional processes which fail to instruct must be revised

until they become effective teaching tools. For it is in the instruction, not in the learner, that the failure truly resides. Revision of instruction is thus based upon a systematic process of obtaining feedback from the learner. Test item analysis and learner interviews are two sources of revision data.

Also important here is a systematic attempt to assess student affect--the learner's attitude toward the learning activities and the subject under study. What have we achieved if the student, while mastering the objectives of a course, has in the process learned to hate the subject? More attention must be given to student attitudes.

Summary

The laudable goal of individualized instruction in our classrooms can become a reality through the incorporation of self-paced, self-instructional units which operationalize the systems approach to instruction.

This approach consists of:

- (1) Breaking course activities into short segments or units through which the learner can proceed at his own rate
- (2) Monitoring achievement after completion of each segment
- (3) Revising each instructional segment until the desired level of achievement is attained by the learner.¹¹

A course composed of a series of self-instructional units frees the instructor from his traditional role of lecturer, and provides him time to act as a manager, diagnostician, catalyst, tutor, leader, and to work with students individually.

Teachers are potentially the most sensitive, flexible, and divergently responsive components of any instructional system. Under the limitations of conventional teaching, however, they seldom have the time or opportunity to concentrate their efforts on that which teachers can do best: (1) diagnose an individual learner's difficulties, (2) interact with learners when they need help on a one-to-one basis or in small group discussions, (3) inspire and motivate, or (4) identify and encourage creativity and self-direction.¹² Individualized instruction frees teachers to engage in these kinds of activities, and permits students to direct and pace their own learning.

This, then, is the essence of a humanistic approach to education. Through self-paced, self-directed learning, students are provided opportunities for close contact with the instructor, are challenged by the work, have confidence they can succeed, and indeed, experience gratifying success in their learning endeavors.

Individualized instruction, then, enables the learner to proceed at his own speed by breaking down the material into segments in an "open lab" situation, with constant evaluation of his progress. "Independent study" is not recommended, however. The teacher remains a vital part of the system.

Now, in closing, I would like to present on tape, the voice of Dr. Richard Morgan, a psychologist at Mitchell College, North Carolina:

The systems approach has made a tremendous change in me as a teacher, and in the behavior of my students....

There are three problems that we must face:

- (1) There is too much emphasis now on what the teacher does, rather than what the students do.
- (2) Students have been imprisoned too long in the three hour, 50-minute, twelve week course.
- (3) Many students have been killed as learners by the old system.

The new systems approach has changed all of that. In my class last semester, 60% earned A's in psychology. In fact, there were eighteen A's, six B's, four C's and two incompletes.

How does this happen?

- (1) The systems approach liberates the students to learn by themselves. It is no longer a case of 'the student as nigger,' as the saying goes. Tests are designed not to force students to fail, but to encourage learning--and they know it. The teacher simply gets out of the way of the students' learning.
- (2) When students know the behavioral objectives of a course, this takes the fear and threat out of learning. They know what they must learn....It makes the student feel successful--able to learn.
- (3) Systems makes it possible for fast students not to be held back--they can finish at their own speed....

The main hang-up is the instructor's fear of loss of contact with students. Actually, the individualized approach gives more contact with students, with more small groups and more interaction.

You've probably read Education and Ecstasy. I can tell you this: I have seen ecstasy in learning under the systems approach.

QUESTIONS AND ANSWERS (HERRSCHER)

Q (Dodge City) - Does the teacher--the "manager of learning--" control both the objectives and the measurement of what is learned? Is there student participation?

A - Students accept at the outset the instructor's judgment on objectives. Later in the course, they are more ready to speak up and help to revise the material.

Q (Hearston) - What about motivation? Students do lack motivation.

A - I don't know why all the students are on campus. Some are there maybe because they don't want to go to Viet Nam. (In my day it was the Korean War.) But no matter why they come, if you have something for them, they'll stay. (If they just get more of the high school or university style of teaching, we may lose them in the first semester. But if we come up with learning experiences that are interesting, and offer success, they stay.) One thing is sure--we can't "con" the students with a revolving door system--in and out in one semester. We've got to provide new learning experiences to keep them.

Q (Mobile State) - How can you give teachers from high schools and graduate schools a junior college attitude?

A - It's true that some people with new attitudes and new approaches get squelched and frustrated by old-timers who say "None of this Mickey Mouse stuff here." The only answer is in-service education for those who are willing. Teachers who are exposed to workshops get the idea--but they do need released time to work on converting their own courses to systems....One instructor can inspire others and the whole campus may get the message in time. It happened at Mitchell and Kittrell and Louisburg Colleges in North Carolina.

Q (Black Hawk) - What of those students who cannot spend enough time to master a difficult subject matter? What do you do with them?

A - Counsel them into areas where they have strength.

Q - Will the "Human Potential" approach help in this process?

A - Absolutely--it is a corollary to the systems approach. They reinforce each other.

Q - How does all of this apply to occupational programs?

A - This is already done in many such courses. They have had their own behavioral objectives for years. Claud Hunter at Central Piedmont Community College has even applied the audio-tutorial system and individualized instruction to auto mechanics.

- Q - What kinds of goals or objectives would you have for a course in American Literature?
- A - The ultimate goal is to get them to read; the immediate goal, to gain understanding of literature. Behavioral objectives are subordinate to these goals, but can be developed for any course.... I have a list of instructors who are teaching with the systems approach--successfully--in almost any discipline you can name.
- (Editor's Note: This list, and others like it will be merged and published by PWDI.)

FOOTNOTES

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THE IMPLICATION OF STUDENT PERSONNEL
SERVICES FOR EFFECTIVE INSTRUCTION

Joseph W. Fordyce, President
Santa Fe Junior College, Gainesville, Florida

Jean-Pierre and Michelle were out fishing. They tried several spots without success. Then they reached a spot where their nets were filled with fish. "Be sure to mark this spot," Jean-Pierre told Michelle. "There are more fish here than we have ever found before." So they fished for some time, and meanwhile fish kept on coming. Finally, the boat was filled even to overbrimming. So they went on to shore, and Jean-Pierre said to Michelle, "Did you mark that spot where we got all that fish?" Michelle said, "I certainly did. I put an X right on the side of the boat." Jean-Pierre said, "Stupid! What makes you think we'll get the same boat tomorrow?"

As we wander around in higher education, I sometimes wonder whether we even bother to put the X on the boat, let alone determine whether or not we are going to get the same one tomorrow. I suggest to you some words that I think may have some significance as far as we are concerned. They are "problem" words. Listen to them:

- Indifference and neglect
- Stereotypes and labels
- Lack of information
- Lack of availability of student records, or vice versa--
the too frequent availability of student records
- Disciplinary action
- Police action
- Discrimination
- Poor teaching
- Intimidation
- Lack of fair play and due process
- Involuntary attendance
- Lack of relevance
- Institutional rigidity

I suspect I do not need to tell you that these are simply a listing of student concerns that have been identified by the American Council on Education's Committee on Campus Tensions. I suggest its report to you for reading because it is indeed an indictment of the kind of things that have perhaps caused us to lose our way at times.

I am going to talk with you this evening about the role that student personnel work should play in all of this. I suggest to you

that there are many of us involved somewhat in student personnel work who continue to make great promises about what indeed these services will provide for the educational system of America. There are indeed rewards, but they are not being fully reaped.

Leland Medsker has made a number of studies of the role of student personnel work in America's community colleges, and in his early research, and not very many years ago, as you will recall, he pointed out that less than 20% of America's community colleges had a chief administrative officer whose primary function was the administration and coordination of student personnel services. In later studies, of course, he has seen fit to revise upward this figure somewhat, but it is still notoriously low. The Raines study a few years ago dealt with another aspect of this function, but corroborated for the most part the rather doleful results of the Medsker study. But perhaps even more indictful, it suggested that even where there were reasonably good student personnel programs, it was still fairly difficult to see what impact they were having upon the institution.

Edmund J. Gleazer, in a noteworthy speech at Santa Fe Junior College last fall was asked to address himself to what he believed to be the greatest single issue ahead of us in America's junior colleges. He put it in the form of a question: "Can we keep the open door open?" It is my suggestion that we can, to the extent that we do indeed learn the lessons that student personnel services have attempted to provide for us.

Earl Koile at the University of Texas has recently said, "There is irony in the current state of higher education. Students are dissenting, demonstrating, and even rebelling. They are rebelling against the establishment and the community as it exists; yet they are seeking some sense and form of community." He goes on to say, "College faculties as well as individuals (which is a kind of a Freudian slip, I suppose) need the freedom to be ignorant, to fail, and to try things at which they are inept if there is to be the freedom to learn, to grow, and to experience life more fully."

I suggest to you that American higher education has been based upon the philosophy and the point of view that faculty members, above all, simply cannot be ignorant, cannot be inept, and do not dare to try to do those things in which they are not expert. And by and large, they have taught their students to follow their example too well.

Ed Gleazer, in the address that I have spoken of, described some situations from his many travels, quoting from the 22nd Psalm. If you haven't read that recently, and want to be chewed up a little bit, you should read the 22nd Psalm because it describes the most doleful state of human life I think that I have ever read. In my room last night, I discovered an open Bible, and I was somewhat

reminiscent of my rather doleful picture of higher education. I came upon this message: "I am weary with my running. All the night make I my bed to swim. I water my couch with my tears." If this is not indeed the picture of higher education in the 70's!

Then what kind of conditions, what kind of precepts can we prescribe that will indeed do something about it? I suggest certain conditions that, in my judgment, if present, might help alleviate some of the conditions with which we are faced.

I was privileged today to be present at a meeting with a number of leaders representing the various associations of higher education, where the question came up: "Can we keep our colleges and universities open this fall?" You can imagine a group of leaders of American education pausing to consider seriously this question. Then how can we, by taking part, make sure that it does not happen in the junior colleges?

I suggest to you therefore, if I may, eight conditions that seem to me to have relevance for education in terms of the kinds of things that I would like to think student personnel leaders can do to indeed take leadership on each of America's campuses.

I am not suggesting that student personnel workers have these conditions as their exclusive domain. Teachers, inspired administrators, regardless of their background, regardless of their major contribution, regardless of their major concerns in their major fields, can and do subscribe to these same concepts. But I suggest to you that these conditions are more likely to be present in the college that has given full recognition to and full support for a visible program of student personnel work. Or to put it the other way around, these are conditions which student personnel workers are challenged to provide on the campus if they are indeed to earn their salt.

(1) Student personnel workers must indeed be the major interpreters of the philosophy of the institution. You may part company with me here because I suspect that if student personnel workers are to be the major interpreters of the philosophy of an institution, we have to say something about what the philosophy of that institution must be. It must be among other things student-centered. It will view subject matter as a means to an end and not an end in itself. It will be concerned with the growth of the great human potential which we see in front of us. It will be convinced that we have only begun to scratch the surface in terms of realizing the potential of every human being.

We must provide successful educational experiences for every one of those human beings that step within that door. If not, we will fall short of the ideal of open-door post-secondary education. We do not need to, because we are thoroughly convinced that there is great human potential that has not been tapped. I have an idea that colleges will realize this more fully if there are indeed student personnel workers to constantly remind us of it. I am equally concerned that

student personnel workers do accept this challenge as one of their primary roles.

(2) Second, student personnel workers must present models of behavior, not "goody goody" necessarily (although that's not a bad model), but models of behavior as teachers and counselors, models concerned with humanizing the classroom and the entire educational system.

I am well aware of the fact that you had an inspirational message this morning in reference to humanizing. Let me talk with you for a few minutes on my notion of what it means to humanize the teaching situation. A teacher who is concerned with human values and human concerns will ask himself these questions: Is teaching for the purpose of transmitting formal knowledge, facts, and data, or is it to provide an interaction or atmosphere conducive to self-realization? Is it to condition appropriate academic responses and behaviors or is it to encourage self-appropriated learning that allows for individuals to determine responses and behaviors?

Is the purpose to condition students to accept passively the factual material that we pass on? Or is it to encourage his active participation in this experience which is such an important part of life? Is it to get the students to accept some other person's decision as to what is important for him to be exposed to, or is it seen as an opportunity for him to become responsible for his own life? If the answer is yes to a number of the latter parts of the preceding questions, then the learning situation is indeed being humanized and we are wasting our time because the teacher has already learned his lesson. On the other hand, if the teacher answers negatively some of the latter questions, then the classroom experience is not being humanized.

Humanizing anything is dependent upon the attitude that is brought to any learning role. On the other hand, with transmitting, controlling and manipulating, where one person makes choices for another, there is no room for humanizing. If, however, the teacher approaches the classroom with a desire for human interaction in conjunction with the subject matter--not devoid of it, not in place of it, but in conjunction with it, resulting in self-directed responses and behaviors, then indeed this in and of itself is the learning experience, a situation in which the classroom indeed can become and is humanized.

(3) Student personnel workers must be leaders in providing and establishing a cooperative environment for their colleagues. We have heard much in the last several years of the situation in which teachers, instructors, professors, and administrators describe the institution's counselor by saying: "Oh, yes, I know him... I saw him once last year... He's one of those down in the dark dungeon down the hall..."

If student personnel work is ever to have any effect on education at large, then instead of that reclusive kind of behavior, student personnel workers must be leaders in establishing a cooperative environment for their colleagues. They must be human facilitators not only in assisting students, but also in taking the lead in providing the same kind of environment for all of their colleagues in order that the entire educational world can be happier and more productive.

(4) Student personnel workers and others in related work must take the lead in establishing a more non-punitive environment for students. If you will consider with me for a moment the list of student concerns I quoted from the American Council on Education study, you will see that a great majority of these are concerned with the punitive environment in which we find ourselves in most educational institutions.

(5) In an open door admissions institution, such as most of us profess the comprehensive community college to be, I think that student personnel workers must take the lead in providing a positive environment for students who will come to us with a tremendous amount of educational scar tissue. I submit that students who need our services must be ones who have had experiences--perhaps more than anything else--of failure and frustration. For them the educational system has provided little that can be reassuring, positive, or growth producing. Student personnel workers must provide the environment in which all the rest of us are constantly being reminded that we will indeed be involved with students who possess more than their share of educational scar tissue.

(6) Student personnel workers, as they make their contribution to the educational milieu in which we all live and work, must also participate in helping to provide meaningful occupational programs. I am suggesting that student personnel workers must not be content merely to sit aside, away from the mainstream of education, but can indeed get into the act in a very meaningful way, it seems to me, to help provide the very best kinds of occupational opportunities. I think here, for example, of the occupations generally known as behavioral science--the teacher aides, the nurse aides, the counselor aides--all of these and other kinds of paraprofessionals and technicians that are going to be increasingly important in the world in which we are to live.

(7) Point seven is that student personnel workers, if student personnel work is to come to anything like full fruition, must get into the mainstream of college governance. No longer, it seems to me, can they turn over to teachers and instructors--no matter how important that role is, and certainly not to administrators--the role of governing and managing the institution. It seems to me that here, the student personnel workers, if they are worthy of their calling, will have much to say about the general running of the institution. For

better or for worse, they must actively seek ways in which they can become involved in the major issues and the major concerns of the institution.

8) Finally, it occurs to me that programs must be established that relate to the total curriculum and that stress the humanness and the humanness of the educational profession. Student personnel workers, counselors and others, must constantly point out the need for such programs and courses, and take the lead in developing proposals for human relations programs.

At the risk of sounding immodest, I would like to speak of my experience of the last five years at Santa Fe Junior College, suggesting certain things that we do which would serve to illustrate these eight points of commitment--the eight points that I hope will lead to conditions under which student personnel work can indeed come into its own as a major partner or as Terry O'Banion said, a senior partner, in the junior college.

From the very beginning, counselors and student personnel workers at Santa Fe attempted to relate to their environment in the conduct of college affairs. First of all, the organization of the College is not by subject matter divisions nor by subject matter departments, but usually, as far as instructors and counselors are concerned, is described in a concept which we refer to as a "house," not a particularly imaginative term. A house, which will someday be a geographical unit, presently, consists of organizational and psychological units. What it attempts to do is to pull together for one purpose--and one purpose only--the improvement of instruction and the improvement of the educational product. Each unit pulls together some 12 to 13 counselors and teachers (teachers across the board as far as subject matter is concerned) to relate to some 300 to 400 students. A house consists of four units or some 45-50 instructors and counselors working together, relating to some 1200-1500 students. We have counselors and teachers and students in constant interaction, with interaction not only between faculty members and students, but perhaps even more important, a constant interaction between these people who seem so strange on some campuses--counselors and student personnel workers--with teachers of Latin, mathematics, history and biology, for example.

At Santa Fe we have also made every possible attempt to set up what we hope is a representative democracy of standing committees on every major function of the College. These committees relate to all problems dealing with academic affairs, business affairs--how we spend our money, student affairs, and curriculum development, and on each of these standing committees there is indeed a full representation of counselors working with teachers and administrators, all hopefully of one mind concerning themselves with what eventually becomes the policy of the institution.

With respect to curriculum and programs, there has been an attempt on the part of student personnel workers to try to see the kind of things their academic brethren are concerned with and to encourage the development of programs that are meaningful. And here comes to mind our establishment of the "Little School," a nursery school, which provides not only its own excuse for being in terms of all kinds of social good, but more importantly becomes a laboratory for the teacher aide, for the nurse aide, for the counselor aide, and for all those other individuals who student personnel workers are trying to bring out somewhat in their own image as humane human beings.

I invite your attention also to a project that has been very meaningful for us at Santa Fe--a vocational rehabilitation project started some several years ago. It is a project sponsored jointly by the College and the Florida State Vocational Rehabilitation Agency. It was designed to give a group of 20 rehabilitees 12 weeks of experience on the campus. They worked in all parts of the college and the opportunity for the acquisition of all kinds of skills was provided. Of the first group in this project, two became licensed vocational nurses; one graduated with an associate degree and attended a four-year college; one with debts got a job to pay them off; and one was employed in the "Little School."

In all this, we have eight beliefs that we try to live by:

- (1) The student is the central focus.
- (2) Teaching occurs only when learning occurs.
- (3) For maximum learning, individualization and multi-media approaches are needed.
- (4) Teaching must be relevant to the student and the community.
- (5) Teaching must be exciting.
- (6) All human beings have potential that is untapped.
- (7) Experimental approaches are needed, and not all must be successful.
- (8) The traditional 50-minute period, the rectangular classroom, "F" grades, and such old cliches of our colleges are all in need of change.

Traps and diversions that turn the students off must be eliminated.

Withdrawals without penalty must be permitted.

How does this sort of program work for the counselors? The teachers were against mixing with counselors at first, but came to

realize that counselors are good teachers. In our faculty evaluation conducted last spring, peer evaluation was important. Twelve members emerged as outstanding faculty or teachers, and of these, six were counselors....Any questions?

* * *

Q - How many counselors do you have at Santa Fe?

A - We had twenty counselors, out of 200 faculty, for about 2700 students last year.

Q - Do they do nothing but counseling?

A - No, they spend about half their time counseling and the other half teaching EE 100--an orientation course for all entering Freshmen, with small group interaction to develop their self-image, confidence and motivation. It is based on the "human potential" concept, and it works--it has cut the drop-out rate significantly, particularly among black students.

GENERAL EDUCATION IN OCCUPATIONAL PROGRAMS

Robert Bartlett, Assistant Executive Secretary
North Central Association of Colleges and Secondary Schools

In my remarks today I will be attempting to weave together the views that have been developing over the past few years in the North Central Association's Higher Education Commission regarding the place of general education in occupational programs.

It might first be noted that the North Central Association (NCA) attempts to be responsive to changing conditions and thought in education. Accreditation is not a process whereby absolute standards are imposed from without; guidelines are used which are open to appropriate interpretation and which point up the fact that few, if any, absolutes exist in education. An institution's responsibility for conducting internal analysis and its justification of its mode of operation play a significant part in the evaluation leading to its accreditation.

Before proceeding, a definition of occupational education is in order. It refers to programs of study designed to prepare individuals for entry into employment in business, industry, trades, health, agriculture, etc., at less than the professional level.

The NCA Higher Education Commission has a long history of dealings with the community colleges, but little attention was paid to occupational education until recently. Initiation of work with degree-granting technical institutes began in 1958; in 1969 the purview was expanded to include non-degree-granting vocational schools that were primarily serving post-secondary school-age clientele. An effort has been made to include occupational education people on our examining teams to community colleges. The current Commission position, although not radically changed, does reflect more of the thinking of occupational educators themselves.

With para-professional occupations coming to the fore, vocational education programs are flourishing. The Federal government has increased its support of post-secondary occupational education. Growing concern for providing a basis for long-term employment and mobility in the face of technological change and the complexities of the job market has led to greater progressivism in vocational education.

Some problems have arisen as the Commission has become increasingly involved with evaluating institutions offering

occupational education. Since this was a new field of endeavor, the general guidelines needed to be more completely explained for those being evaluated as well as for those doing the evaluation. In particular, the Commission's position on general education as it related to occupational education required further elaboration.

Historically, the Commission has upheld the conviction that the programs offered in colleges and universities must rest upon a base of liberal studies. Many claimed that this preoccupation with general or liberal education was inappropriate when evaluating occupational education. In many ways the Commission agrees, but this does not mean that the "baby should be thrown out with the bath water." The rationale for general education enunciated by the Commission in a 1969 statement is one which has been reviewed and repeated in one form or another by occupational educators themselves. The only real recent changes in viewpoint are a result of differences in emphasis and implementation.

The foundation of liberal studies is considered necessary to insure that students are appropriately prepared to appreciate and cope productively with the complex dynamics of modern society as well as the world of work. Students in occupational programs, like their counterparts in other college and university programs, need to develop as intelligent, active and informed citizens, consumers, and members of social groups. Therefore, recognizing the importance of the specialized education and training involved in occupational programs, the Commission holds that the broadening of a student through educational experiences which cultivate the goals of liberal or general education is a necessary part of education beyond the high school level.

Another compelling reason for including general education in occupational programs is the fact that the education which a student receives today must be flexible enough to prepare him for a career and a society in a future which is largely unknown in the current context. Although such a future orientation is important in all higher education, it is particularly relevant to the field of occupational education today. In view of the rapidity of modern technological change, it is unrealistic and inappropriate to design occupational programs which concentrate exclusively on skill development necessary for initial job entry. All educated workers, whether skilled, semi-professional, or professional, will need to master new skills and knowledge throughout their careers. Therefore, if the purposes of occupational programs are to be fulfilled adequately, the programs should be designed not only to give appropriate attention to general skills development, but also to provide the student with opportunities to develop foundations in such general areas as communications and social awareness. Such a background will enable the student to cope more productively with the inevitable changes he will face. Thus, general education may be viewed as necessary to ensure that today's skilled or semi-professional worker will not become "unskilled" tomorrow.

Another way of stating this rationale would be to define general education in occupational programs as the providing of the student with the necessary tools for improving the skills learned in the program and relating them to himself and to society.

In establishing initial guidelines to assist institutions and NCA consultant-examiners in considering general education in occupational programs, certain facts must be kept in mind: the Commission has a lack of experience in this area; the early guidelines referred primarily to the two-year para-professional programs which were closer to the traditional concerns and experience of the Commission; and other agencies such as the U.S. Office of Education and the National League for Nursing had already established some initial guidelines which could be taken into account.

Initially it was felt that greater assistance and clarity could be gained by viewing occupational education curricular design as composed of three interrelated parts: specialization, related and general education. This position was taken with the recognition that these parts were not discrete, but it seemed to focus too much attention on general education as a separate, and not an integral part of the curriculum. Therefore, in most recent Commission documents we are referring to related instruction recognizing that general education or liberal arts is not the real core of occupational education in the sense that "core" denotes "most important." And so the following guidelines have been established:

The program must be looked at in its totality. Content from the various disciplines varies in its "relatedness" with mathematics and natural science, language and communication, and social sciences often not immediately applicable to various course offerings. Student motivation must be taken into account here with the more "un-related" disciplines best being introduced later in a program when the student has more basis for relating to it. Specialized technological courses must come into the program early to motivate the students with general education aspects being introduced at a time when the skills can be related.

The rigor and content of the general education (related instruction) should be appropriate to the capabilities and interests of the students as well as the program goals. This will usually justify different courses for these programs than for transfer programs--transferability should not be a determining factor in such curricular design. Just because such courses are not equivalent to the college parallel doesn't make them remedial. Also flexibility in the form of allowing some course selection options should be available.

The amount of general or related education integrated into the program should be substantial but is dependent upon the institutional philosophy and the program goals. We should not think in terms of 25% or 50% as it depends on the program objectives. (Social science

is often the first to go.) The primary goal is to make the program relevant to today's world of work and living.

The faculty must have appropriate qualifications to teach in the areas of "related" instruction. In general, faculty personnel in paraprofessional programs should have M.A.'s but there will be exceptions. No parameters should be set as persons taken out of industry also have the valuable qualification of work experience. It is difficult to justify having technical specialists in the community colleges also teaching in the related instruction areas, such as language and communication.

Based on the above guidelines some conclusions can be drawn about the state of related instruction in occupational programs offered today. A full realization of the guidelines I have stated is just beginning to emerge in the majority of community colleges across the country. Much has yet to be done. Transfer courses are still "plugged into" these programs as are remedial or developmental programs. A meaningful development of general or related instruction is only going to come through a consideration of the overall goals of the occupational programs themselves and the level and type of position the student will be expected to take in the world or work and society as a result of his learning experiences.

The NCA Higher Education Commission recognizes that this is a developing area. More attention is now being paid to the totality of occupational programs with general or related instruction viewed in the context of the whole program. In evaluation for accreditation purposes it is expected that the institution consider the overall objectives of occupational education and recognize the interrelated value of appropriate academic and specialized educational experiences.

Through the benefit of greater experience both the Commission and you, the experts in the field, will develop a clearer conception of this area of education. We will look forward to working with you.

* * *

Q (Charles Barnes) - At an AAJC-AVA meet May 11-13 in Washington, AVA was very concerned about accreditation. What steps is NCA taking to improve communication and to add vocational education people to its staff?

A - A special committee has been established and a policy statement is being prepared.

Q - What criteria do you have for short-term programs?

A - We're pushing this hard. Evaluations stress the need for various types of training as the community expresses the desire for it.

A SYSTEMATIC APPROACH TO
GENERAL EDUCATION FOR CAREER STUDENTS

Walter E. Hunter, Associate Dean of Instruction
Meramec Community College, St. Louis, Missouri

We are not doing our job half as well as we know how. We say that we believe in human potential and the systems approach but we are not changing fast enough. The League for Innovation in the Community College, about which I will speak shortly, the Regional Education Laboratory for the Carolinas and Virginia and the Program With Developing Institutions are all working on helping to bring about this change.

It is important for us to build on student abilities. I want to begin by making certain assumptions, borrowing here from Carl Rogers, the psychologist:

- (1) The natural potential is there;
- (2) Relevance facilitates learning;
- (3) Participation facilitates learning;
- (4) Self-initiated learning is most effective;
- (5) Self-evaluation is of primary importance--most valuable and most meaningful (it is essential that students don't repeat their mistakes);
- (6) Learning how to learn is most useful of all.

The League for Innovation's Proposal

I would like to read to you a statement proposing a cooperative in-depth, long-term project for developing and implementing a systems approach to the general education requirements for community college vocational programs.

The proposal is made by the League for Innovation in the Community College. The League is a national organization of thirteen junior college districts which aims, through cooperative work, to encourage and evaluate innovation and experimentation designed to improve all aspects of college operation. Membership includes 42 community colleges with an enrollment of more than 300,000 students (approximately one of every eight junior college students in the nation), and more than 10,000 faculty members.

The resources of this national organization of highly-selected, geographically-distributed junior college districts will be marshalled to launch and implement the programs here proposed. In this connection, special mention should be made of the fact that the experiences and findings emerging from a two-year program in a systems approach to the teaching of English, psychology, and chemistry at Meramec Community College (of the Junior College District of St. Louis), a member of the League, will be made available to the program. Expertise from universities and consultants from educational and other institutions--including industry, business and government--in which the systems approach is used will be utilized.

By its very nature, the comprehensive community college is an appropriate institution for the proposed project. This institution is assuming sharply increased responsibility for preparing students for employment. It provides post high school vocational offerings which are relevant to the community in which the college is located. Vocational program development, operation and evaluation involve lay community personnel in an advisory capacity. As a relatively young institution, unhampered by the long hand of tradition, the junior college is in a favorable position to take leadership in change and improvement--particularly in a program the nature of which is innovative and experimental and consistent with the role and responsibility of the junior college.

The aims of the proposed project are:

- (a) To develop, implement, and demonstrate systems which provide relevant general education for vocational students
- (b) To evaluate the outcomes--including immediate student and community feedback as well as long term evaluation--of the systems approach to general education of vocational students
- (c) To make the findings of the demonstration programs and their evaluations available to other community colleges and to other appropriate units of American education
- (d) To share materials developed in the project with other community colleges and with other appropriate units of American education.

A systems approach to the general education requirements of two-year vocational programs will, at least partly, accomplish the following:

- (a) Identification of the specific behavioral general education objectives for students enrolled in two-year vocational programs
- (b) Validation of student achievement of general education objectives
- (c) Evaluation of the appropriateness of general education objectives for individual students.

- (d) Individualization of rate, mode and sequence of achievement of the general education objectives.
- (e) Individualization of the total time committed to acquiring general education objectives.

Needed: A Systematic Approach to General Education for Career Students

One of the most perplexing problems in developing occupational programs is presented by the general education component of these programs. Everyone seems to agree that general education is a necessary part of occupational education. However, hardly anyone agrees exactly what or how much general education should be included in a specific program. Compounding the problem, no one seems to know quite how (or by whom) general education should be taught.

In discussing the importance of the general education component in occupational programs, B. Lamar Johnson¹ quotes a survey which "...reported that of 4,000 office and clerical employees discharged from 76 various business organizations, only 10% lost out because of specific skills, while 90% lost their jobs because of undesirable character traits." The critical importance of general education for vocational students is again clearly emphasized by Richard H. Davis² in the statement "...although the student may secure the job without general education, his opportunity for advancement is severely limited, and he is likely to become 'unskilled' in this rapidly changing technological society." These facts point to the need for new concepts and dramatic changes in general education offerings as an integral part of community college occupational programs.

Davis³ expresses the concern of the North Central Association for the general education component by writing:

Fundamentally, the commission believes that there must be a genuine commitment to general education on the part of those involved in vocational and technical programs. Only when general education has the same degree of support as the technical or vocational curriculum will it become a viable part of any program.

In a monograph recently published by the American Association of Junior Colleges, Robert R. Wiegman⁴ asserts:

The probability of preparing for more than one kind of job in a working lifetime puts relatively less emphasis on preparation for the specific demands of the first job and more emphasis on the need for general education in occupational education....

We must study our offerings in general education, in occupational programs and compare them with a revised concept which sees the sum total of all learning experiences--formal and informal,

in and out of the classroom--which prepares the learner to play his multiple role in life.

As indicated above, support for general education is generally quite strong and this support is essential. However, what is really required is a creative program designed to meet the general education needs of students enrolled in occupational programs. Such a program could readily be developed through the utilization of a systems approach to problem solving.

Educators are turning with increased frequency to the systems concept in order to solve operational problems. The speaker⁵ and his colleagues at Meramec Community College have been engaged in developing, demonstrating and evaluating systems approaches over a period of more than five years. Although each system is different, because each problem is different, the systems approach has been utilized at Meramec in mathematics, English, science, psychology, accounting and so on. Successful systems development in the several areas prompts one to suggest that these concepts should be utilized in the important task of developing, demonstrating and evaluating a creative general education component for occupational programs.

The Systems Model

When applied to learning, a systems approach to instruction should:

- (a) Be based on a set of specifications usually referred to as educational objectives
- (b) Be capable of analyzing student pre-entry skill, knowledge and understanding
- (c) Be programmed so that the best and most effective learning path is available to the learner
- (d) Be capable of using student response and teacher evaluation to improve the system
- (e) Be adaptable to the newer media as they are being developed and made available, and
- (f) Be capable of evaluating achievement and terminating the learning sequence when the prescribed goals are obtained.

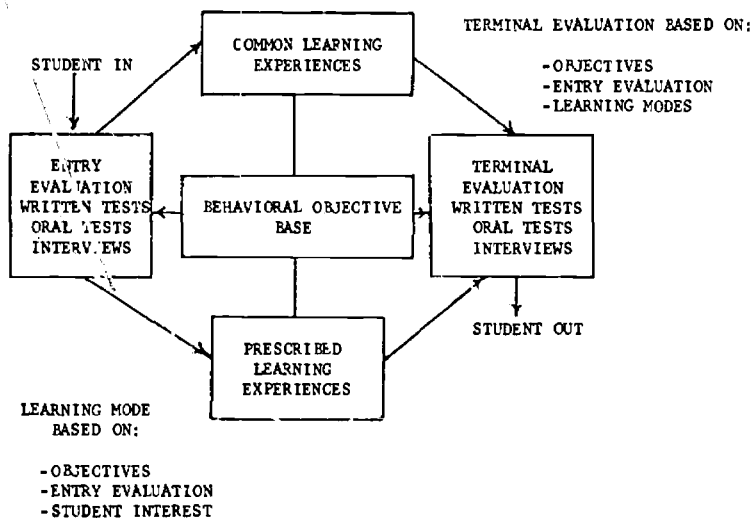
Systems Approach and General Education

The central theme of the remainder of this paper will focus on the utilization of the systems concept for developing an approach to general education for occupational programs.

The first task in systems design is to specify a set of objectives in operational terms. In this case the largest sub-sets of the objectives set will need to be specified in behavioral terms in that they represent the criterion behaviors to be achieved by students. Specification of objectives is probably the most critical activity of systems development. The activity may be envisioned as a two-step process. The first step would be to identify the vital areas of general education. This step must be the result of many inputs, including inputs from occupational and general education teachers, students, technicians, personnel managers, consultants and others. These vital areas may be considered to be the broad, but essential, general education goals. The second step is to refine the vital areas identified in the first step so that they are stated as operational or behavioral objectives. The refinement of broad goals is a highly specific activity which requires the talents of experienced teachers who are competent in writing behavioral objectives. Finally the objectives must be subjected to an analysis by many individuals--occupational and general education teachers, students, technicians, personnel managers and so on, to assure clarity and realistic level.

The second task, the development of entry and on-going evaluation, is based on the objectives specified as a result of completing the first task. Entry evaluation is viewed as a diagnostic tool designed to identify both the strengths and the weaknesses of individual students. On-going evaluation is, of course, that continuous evaluation which reinforces learning and at the same time validates student achievement of the behavioral objectives. This task too needs to be performed by experienced teacher working together and with students so as to keep the objectives and evaluation anchored to reality. On-going evaluation serves to validate student achievement of objectives. Entry evaluation places each student with respect to his ability (readiness) to achieve the objectives--if diagnostic evaluation indicates he is not ready to achieve these objectives, developmental instruction must be prescribed. On the other hand, students who have already achieved some of the objectives designated should be given advanced standing with respect to their progress in the achievement of these specified objectives.

Providing multiple learning pathways constitutes the third task in the development of a learning system. Recognizing that teachers are unique, students are individuals and colleges possess different facilities, the accomplishment of this task may be carried out by different teachers and groups at several locations concurrently. Some students when armed with a set of behavioral objectives and criterion evaluation will be able to proceed individually investing time and energy via the most appropriate self-directed learning pathway. Other students will, of course, require a more structured learning experience. The systems concept here suggests that many teachers develop learning pathways and that these pathways be shared among colleges. The figure below describes schematically a possible systems model for the general education component of an occupational program.



A Possible Systems Model

This model illustrates a flow from entry evaluation, which places the student with respect to the behavioral objective base, through appropriate learning experiences to terminal evaluation. Student entry behaviors are carefully analyzed by testing and interviewing and this analysis is used to plan the best set of instructional and learning activities. The box labeled "Common Learning Experiences" represents the scheduled activities of the system. These learning experiences relate most closely to the affective domain, i.e., students would be involved in activities which change or strengthen their attitudes and feelings. Audio-visual materials, field trips, visiting lecturers and other group experiences would be used to maintain a learning reinforcing environment. The box labeled "Prescribed Learning Experiences" represents activities which are individualized, i.e., students work alone and in small self-directed groups with selected programmed materials, projects, audio and visual materials, readings, problem solving, tutorial instruction and so on. Individual learning activities are based on entry evaluation and relate most closely to the cognitive and psychomotor domains. The time required to achieve these objectives represents an important variable. A student who is equipped with better than adequate entry behaviors will probably proceed more rapidly than another student with less adequate entry behaviors. But most importantly, both students would be able to achieve the set of objectives. When students have completed both the common learning

experiences and prescribed learning activities, they would participate in the terminal evaluation. Achievement of the terminal behaviors would result in award of credit--failure would result in additional appropriate prescribed learning activities.

Conclusion

The speaker has attempted to present an argument for a systematic approach to general education. Such an approach would require the hard decisions of specifying general education objectives. Once a set of objectives are clearly stated the problem-solving concept known as a systems approach may be effectively utilized to develop the best mix of available resources--people, facilities, media and machines.

The systems approach recommended would produce two significant outputs. It would publish a carefully defined set of behavioral objectives and evaluation materials to be shared with appropriate units of education. It would publish a set of validated learning modules which could be used to lead students to the achievement of the general education objectives.

The last significant attempt to draw together a definitive set of general education objectives is represented by the 1952 publication General Education in Action by B. Lamar Johnson. A renewed effort must be made in this important task. The task is enormous but the need great. Any attempt will be filled with pitfalls but success will significantly affect thousands entering new careers.

* * *

REFERENCES

1. Johnson, B. Lamar, General Education in Action. Washington, D.C.: 1953, p. 4. Quoted from Walter Kay Smart and Louis William McKelvey, Business Letters. Harper & Brothers, New York: 1950, p. 419.
2. Davis, Richard E., "Accrediting Technical-Vocational Programs," The North Central Association Quarterly, Vol. XL, Winter, 1966, Number 3, p. 275.
3. Ibid., p. 274.
4. Wiegman, Robert R., General Education in Occupational Education Programs Offered by Junior Colleges. Washington, D.C.: The American Association of Junior Colleges, 1960, p. 16.
5. Hunter, Walter E., "A Systems Approach to the Instructional Process," Report to the Esso Education Foundation, February, 1970.

FINAL SUMMARY

Isaac K. Beckes, Chairman

I hope we will all take advantage of our opportunities in the Program With Developing Institutions. The government is trying to help us get out of our ruts and shake ourselves out of our traditions. We talk about our tremendous challenge but move ahead slowly with half of the population we are serving. As the least bound by tradition of all sectors of higher education, we are trying to change the assumption that half the population can't really break through, get an education and succeed....

The Federal Government broke through the business cycle, broke through the segregation laws and put into effect the one man-one vote principle. Remember this when you feel like browbeating the Federal Government.

We still have our main job to do--to break through and reach all levels of the population. We must adopt new methods and build the kind of peer group support which students need in order to succeed....

Thanks to all of you for attending and for the great interest you have shown at these meetings.

APPENDIX A

ST. LOUIS CONFERENCE
TITLE III - AAJC PROGRAM WITH DEVELOPING INSTITUTIONS

PROGRAM

Sunday, June 14

- 8:00 p.m. - Welcome - Presidents Isaac Beckes and Raymond J. Stith
Interpretation of meeting and introduction of participants:
-Charles Barnes, Dodge City Community Junior College
-James Lopez, Eastern Iowa Community College
-Ernest Stockton, Cumberland College of Tennessee
-Isaac K. Beckes, Vincennes University
Comments about AAJC participation
-Selden Menefee and Shafeek Nader, AAJC/FWDI staff

Innovative Programs at Florissant Valley Community College
-address by David Underwood, Dean, Florissant Valley CC

Monday, June 15

- 9:00 a.m. - Address: "Humanizing Education"
-Barton R. Herrscher, Program Associate, RELCV

10:00 a.m. - Group Discussion

1:30 p.m. - Planning for a Year of Development
-Planning and Development - Selden Menefee, FWDI Director
-Faculty Development - Shafeek Nader, FWDI Assoc. Director

2:15 p.m. - Regional Meetings for planning purposes
Re-assembly for brief progress reports by each region

7:30 p.m. - Address: "The Implication of Student Personnel Services
for Effective Instruction"
-Joseph W. Fordyce, President, Santa Fe Junior College

Tuesday, June 16

- 9:00 a.m. - Address: "General Education in Occupational Programs"
-Robert Bartlett, Assistant Executive Secretary, NCA

10:00 a.m. - Address: "A Systematic Approach to General Education
for Career Students"
-Walter E. Hunter, Associate Dean, Meramec CC

11:00 a.m. - Free time to visit Florissant Valley campus

1:00 p.m. - Group Discussion--on a regional basis

2:30 p.m. - Final Report and General Discussion of regional plans
Final Summary by Chairman Isaac K. Beckes

APPENDIX B

ST. LOUIS CONFERENCE

AAJC Program With Developing Institutions

14-16 June 1970

Compilation of Evaluation Forms Received

Colleges Attending Workshop - 42

Member Colleges (37)

Aquinas Junior College	Marshalltown Community College
Ashland Community College	Martin College
Bay de Noc Community College	Mississippi Delta Junior College
Black Hawk College	Mobile State Junior College
Coffeyville Community Junior College	Morristown College
Cumberland College of Tennessee	Ottumwa Heights College
Dodge City Community Junior College	Presentation College
Eastern Iowa Community College District	Prestonburg Community College
Elizabethtown Community College	Prince George's Community College
Elizeworth College	Rangely College
Gogebic Community College	St. Mary's College of O'Fallon
Hesston College	Somerset Community College
Hibbing State Junior College	Southern Baptist College
Hopkinsville Community College	Southwest Mississippi State Junior College
Independence Community Junior College	T. A. Lawson State Junior College
Iowa Lakes Community College	Vincennes University
Joliet Junior College	Willmar State Junior College
Lee College	Wood Junior College
Malcolm X College	

Associate Colleges (5)

Bacon College
Kennedy-King College
Northern Oklahoma College
Paris Junior College
St. Gregory's College

(Item #5) In general, what value do you feel this workshop had for you?

Of 85 returns:

Very Valuable - 21 (25%)
Considerable Value - 50 (59%)
Some Value - 14 (16%)
Little Value - 0
No Value - 0

35/-39-

(Item #6) What sessions were most valuable to you? (listed in order of value)

Speaker or Topic	First	Second	Third
Barton R. Herrscher	57 (66%)	7	5
Robert Bartlett	8	19	8
Walter E. Hunter	3	22	14
Joseph Fordyce	7	10	13
Regional Meetings	7	7	4
David Underwood	1	7	5

(Item #7) What are the main ideas you have gleaned from this workshop?

Better understanding of a systems approach (often with application to a particular field) - 37

Necessity of formulating behavioral objectives - 13

Increased emphasis on individualized instruction - 8

General education is secondary in occupational programs - 8

Necessity of humanizing education - 6

Conference proved to be a good introduction to the FWDI Program - 6

Flexible approach of the North Central Accrediting Association revealed - 5

Innovation and changes in education - 5

Modern techniques for occupational education - 3

Ideas on involving student personnel workers - 3

Sharing of ideas by all concerned at conference - 3

Need to develop goals for the total curriculum - 2

Better perspective of problems facing colleges - 2

Pros and cons of a new approach to occupational accreditation - 2

Team approaches should be developed by faculty and administration - 2

Value of faculty and student involvement in curriculum and budget development - 2

Teacher evaluation is a necessity - 2

Instructional media are coming into very wide use

Federal government is aware of the importance of junior colleges

That my college (Martin College) is keeping step with innovative programs of education

That my college (Somerset Community College) needs badly to write objectives for courses

Need for workshops in instructional objectives and individualized approaches

Motivational effort to get a faculty going in an innovative program

Importance of regional developmental level facilities

Importance of getting ideas to whole faculty

Need for further development of comprehensive college concept

Possibilities for greater faculty development

Ideas concerning use of tapes in classrooms

That my college (Elizabethtown Community College) needs to reevaluate its educational objectives

Understood community college concept better

Gained general feeling for trends

Better understanding of AACC's programs

New ideas for faculty training

Need for consideration of different approaches to teaching

General idea of how to implement a program

Importance of counseling

That the teacher is an "organizer" or learning

Concept of released and extended time to develop new educational methods

Successes and failures of various schools in their approaches to developing instructional objectives

Importance of constant evaluation of specific programs

Item #7 cont.

Found resource people for my college
Sources of financial aid for my campus
Better understanding of the consortium principle
Need to set goals
All areas of the college must relate to instruction
Necessity of faculty participation in systems approach
Pooling of resources is necessary

(Item #5a) What criticisms did you have of this workshop? (if any)

Accommodations too far away from conference site - 16
Schedule was too packed allowing little time for informality - 9
(Too much free time - 2)
Campus tours should have been more formally organized...Host school should have made more of an attempt to welcome participants - 8
Slow and poor meal service at Holiday Inn - 5
Lecture method used was too traditional ("Did not practice what preached.") - 5
Lack of small buzz sessions - 4
Poor selection of a meeting site - 3
Should have been more participation by conference participants - 3
Not enough time in regional groups - 3
(Too much time in regional groups - 2)
Roster of participants was not distributed - 2
Meetings were too long - 2
Too much emphasis on systems approach - 2
No central theme for the conference - 2
Nothing new from previous conferences - 2
Speakers should distribute supporting materials - 2
Behavioral objectives not defined
Film sessions not needed
Earlier closing hour so that participants don't have to leave early
Lack of organization
Poor facility planning
Program conducted by observers of systems approach, not by participants
More how-to-do demonstrations desired
Workshop should end by motel check-out time
Omit evening sessions
More dynamic consultants desired
Speakers spoke too long
Sessions too repetitive
Not enough getting down to the "nitty-gritty"
Conflicting events (films and tours)
Purpose of conference not known beforehand
Poor microphone setups during question period
Time wasted in making announcements
Poor use of visual aids
No revolutionary, anti-establishment ideas presented
More organizational help from PWD staff needed
Not addressed to colleges with limited resources